552903

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number
WO 2004/090840 A1

(51) International Patent Classification[7]: G09C 1/06

(21) International Application Number:
PCT/KR2004/000847

(22) International Filing Date: 13 April 2004 (13.04.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:

| | | |
|---|---|---|
| 10-2003-0023528 | 14 April 2003 (14.04.2003) | KR |
| 10-2003-0039049 | 17 June 2003 (17.06.2003) | KR |
| 10-2003-0052939 | 31 July 2003 (31.07.2003) | KR |


(71) Applicant *(for all designated States except US)*: **NEXVI CORPORATION** [KR/KR]; 205-704, Kumnamu Apt., 908-1, Doonsan-Dong, Se-gu, Daejon-si 302-122 (KR).

(72) Inventors; and

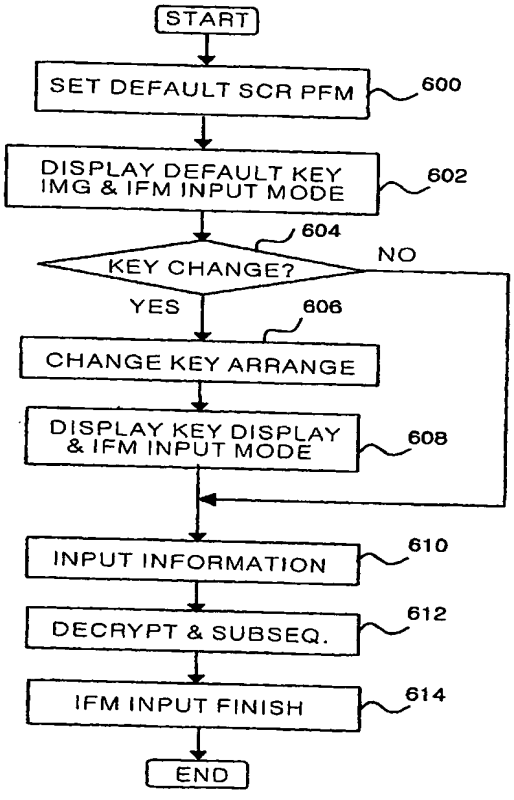
(75) Inventors/Applicants *(for US only)*: **KIM, Jun-Sik** [KR/KR]; 205-704, Kumnamu Apt., 908-1, Doonsan-dong, Se-gu, Deajon-si 302-122 (KR). **YIM, Sang-Bin** [KR/KR]; 1066-301, Galma-dong, Se-gu, Daejon-si 302-809 (KR). **KIM, Byung-Sung** [KR/KR]; 160-45, Gayang2-dong, Dong-gu, Daejon-si 300-802 (KR).

(74) Agent: **LEE, Ki-Sung**; 3rd Fl., Dongbo Bldg., 647-8, Yoksam-dong, Gangnam-gu, Seoul 135-080 (KR).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

*[Continued on next page]*

(54) Title: INFORMATION INPUTTING SYSTEM WITH A VARIABLE ARRANGEMENT OF KEYPAD, AND CONTROL METHOD THEREOF




(57) Abstract: The present invention discloses a keypad matrix element shift arrangement method having an efficient an neighboring numeral traffic line customarily. According to the present invention, an information input apparatus whose key arrangement varies includes a key display section of a square shape for displaying a key image, and a key input section for receiving information of a corresponding key at a predetermined location of the key image displayed by the key display section. The information input apparatus further an input controller for generating an image of predetermined key arrangement selected among a plurality of key images in which numeric keys are shift-arranged so that there is no crossing in an neighboring numeral traffic line, providing the generated image to the key display section, and converting information inputted through the key input section into an actual key value according to the predetermined key arrangement.

WO 2004/090840 A1

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*